

GEOLOGIC MAP OF THE SAN ONOFRE BLUFF 7.5' QUADRANGLE SAN DIEGO COUNTY, CALIFORNIA:

A DIGITAL DATABASE

VERSION 1.0 Compiled By Siang S. Tan



Digital Database Amy C. Zach² and Kelly R. Ruppert²

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Qyfga QUATERNARY Pleistocene Tpmt5

MAP SYMBOLS Contact between map units. Solid where accurately located, dotted where Fault-solid where accurately located. Dashed where approximately located or inferred; dotted where concealed. U = upthrown block, D = downthrown block. Arrow and number indicate direction and angle of dip of fault plane. Strike and dip of inclined sedimentary beds. Landslide- arrows indicates principal direction of movement. Landslides were map subsequently altered by mitigation and stabilization activites. Querried

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DESCRIPTION OF MAP UNITS

mb _a	Active marine beach deposits; unconsolidated sediments; a – sand with some gravel.
^{yc} ga	Younger (Holocene, not active) colluvial (slope wash) and stream deposits along small drainage courses; ga = gravelly sand with clay and silt.
^{yf} ga	Younger (Holocene, not active) alluvial fan deposits; ga – gravelly sand with clay and silt.
Qls	Landslide deposit; landslide, broken-up and weathered material, subject to renewed slope failures. Querried where existence is questionable.
mt _{6sa}	Older (Pleistocene, younger than 500,000 years) marine and non-marine terrace deposits above marine wave-cut platform; moderately consolidated sediments. Age of platform is estimated to be 80,000 years (6 – Nestor Terrace); sa – silty sand with clay and gravel.
mt _{4sa}	Older (Pleistocene, younger than 500,000 years) marine and non-marine terrace deposits above marine wave-cut platform; moderately consolidated sediments. Age of platform is estimated to be 300,000 years (4 – Stuart Mesa Terrace); sa = silty sand with clay and gravel.
^{nt} 4-6ga	Older (Pleistocene, younger than 500,000 years) marine and non-marine terrace deposits above marine wave-cut platform; moderately consolidated sediments. Age of platform is estimated to be between 120,000 (6 = Nestor Terrace) and 300,000 years (4 – Stuart Mesa Terrace); ga – gravelly sand with clay and silt.
^{nt} 1-2ga	Older (Pleistocene, younger than 500,000 years) marine and non-marine terrace deposits above marine wave-cut platform; moderately consolidated sediments. Age of platform is estimated to be between 413,000 (2 = Parry Grove Terrace) and 450,000 years (1 – Golf Course Terrace); ga – gravelly sand with clay and silt.
o <mark>mt_{14ga}</mark>	Very old (Pleistocene, older than 500,000 years) marine and non-marine terrace deposits above marine wave-cut platform; moderately consolidated sediments. Age of platform is estimated to be 630,000 years (14 – Fire Mountain Terrace);

Very old (Pleistocene, older than 500,000 years) marine and non-marine terrace deposits above marine wave-cut platform; moderately consolidated sediments.

Very old (Pleistocene, older than 500,000 years) marine and non-marine terrace

deposits above marine wave-cut platform; moderately consolidated sediments. Age of platform is estimated to be between 510,000 (15 = San Elijo Terrace) and

Very old (Pleistocene, older than 500,000 years) marine and non-marine terrace deposits above marine wave-cut platform; moderately consolidated sediments. Age of platform is estimated to be 855,000 years (11 = Linda Vista Terrace);

Very old (Pleistocene, older than 500,000 years) marine and non-marine terrace deposits above marine wave-cut platform; moderately consolidated sediments. Age of platform is estimated to be 930,000 years (10 – Tierra Santa Terrace); ga = gravelly sand with clay and silt.

Very old (Pleistocene, older than 500,000 years) marine and non-marine terrace deposits above marine wave-cut platform; moderately consolidated sediments. Age of platform is estimated to be 975,000 years (9 = Mira Mesa Terrace);

800,000 years (12 - Tecolote Terrace); ga - gravelly sand with clay and silt.

Age of platform is estimated to be 698,000 years (13 = Clairemont Terrace);

ga - gravelly sand with clay and silt.

ga = gravelly sand with clay and silt.

ga = gravelly sand with clay and silt.

ga = gravelly sand with clay and silt.

deposits above marine wave-cut platform; moderately consolidated sediments. Age of platform is estimated to be 1,445,000 years (4 = Flores Hill Terrace); ga = gravelly sand with clay and silt. Very old (Pleistocene, older than 500,000 years) marine and non-marine terrace deposits above marine wave-cut platform; moderately consolidated sediments. Age of platform is estimated to be 1,525,000 years (3 = Eagle Terrace); ga - gravelly sand with clay and silt. Very old (Pleistocene, older than 500,000 years) marine and non-marine terrace deposits above marine wave-cut platform; moderately consolidated sediments. Age of platform is estimated to be 1,670,000 years (2 = Pendleton Terrace);

ga - gravelly sand with clay and silt.

ga = gravelly sand with clay and silt.

ga - gravelly sand with clay and silt.

ga = gravelly sand with clay and silt. Very old (Pleistocene, older than 500,000 years) marine and non-marine terrace deposits above marine wave-cut platform; moderately consolidated sediments. Age of platform is estimated to be 1,760,000 years (1 - Carroll Canyon Terrace); ga = gravelly sand with clay and silt.

Pliocene marine and non-marine terrace deposits above marine wave-cut platform; moderately consolidated sediments of gravelly sand with clay and sand. Age of Tmpt5

platform is estimated to be 2,130,000 years (5 = Horno Hill Terrace). Pliocene marine and non-marine terrace deposits above marine wave-cut platform; moderately consolidated sediments of gravelly sand with clay and sand. Age of platform is estimated to be 2,360,000 years (4 = Foley Canyon Terrace).

> Pliocene marine and non-marine terrace deposits above marine wave-cut platform; moderately consolidated sediments of gravelly sand with clay and sand. Age of platform is estimated to be 2,630,000 years (3 = Cuate Hill Terrace). Pliocene marine and non-marine terrace deposits above marine wave-cut platform; moderately consolidated sediments of gravelly sand with clay and sand. Age of

deposits above marine wave-cut platform; moderately consolidated sediments. Age of platform is estimated to be 1,160,000 years (7 - Rifle Range Terrace);

Very old (Pleistocenc, older than 500,000 years) marine and non-marine terrace deposits above marine wave-cut platform; moderately consolidated sediments. Age of platform is estimated to be 1,290,000 years (6 – Aqueduct Terrace);

Very old (Pleistocene, older than 500,000 years) marine and non-marine terrace deposits above marine wave-cut platform; moderately consolidated sediments. Age of platform is estimated to be 1,375,000 years (5 – Aliso Canyon Terrace);

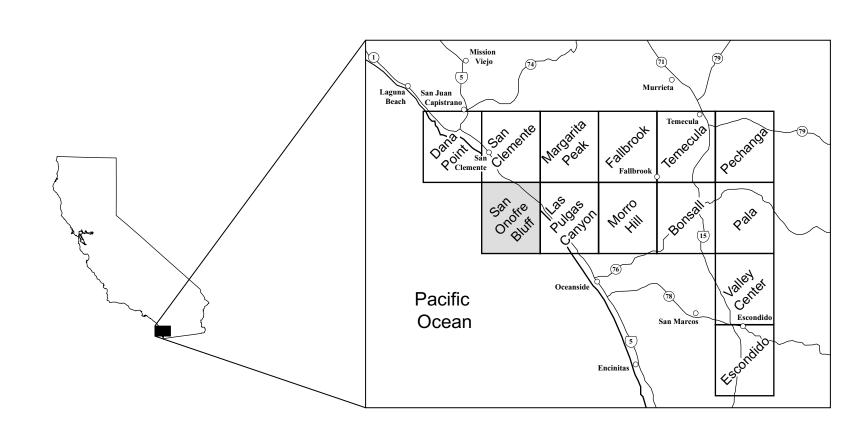
Very old (Pleistocene, older than 500,000 years) marine and non-marine terrace

platform is estimated to be 3,090,000 years (2 = San Onotre Terrace). San Mateo Formation. Marine coarse grained arkosic sandstone with conglomerate and conglomeratic sandstone lenses; weakly cemented and poorly bedded. Also known as the turbidite facies of the Capistrano Formation (Morton and others,

Monterey Formation. Marine diatomaceous shale interbedded with silty shale, siliceous shale and siltstone, with minor chert, limestone and clacareous shale

lenses. Generally thin bedded, hard but severely fractured/jointed and fissile. San Onofre Breccia. Marine breccia, conglomerate, fine to coarse grained sandstone, conglomeratic sandstone with sandy siltstone lenses and interbeds. Poorly cemented but locally well cemented; massive to poorly bedded to

lenticular. The clasts mainly consist of Catalina Schist detritus.





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